

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference PCT2192DK006	<b>FOR FURTHER ACTION</b>	See item 4 below
International application No. PCT/EP2004/013342	International filing date ( <i>day/month/year</i> ) 24 November 2004 (24.11.2004)	Priority date ( <i>day/month/year</i> ) 24 November 2003 (24.11.2003)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 *bis*.1(a).
2. This REPORT consists of a total of 7 sheets, including this cover sheet.  
  
In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:
 

<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input checked="" type="checkbox"/> Box No. VII	Certain defects in the international application
<input checked="" type="checkbox"/> Box No. VIII	Certain observations on the international application
4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. +41 22 740 14 35	Date of issuance of this report 29 May 2006 (29.05.2006)  Authorized officer  <div style="text-align: center; font-weight: bold;">Agnes Wittmann-Regis</div>  Telephone No. +41 22 338 89 70
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# PATENT COOPERATION TREATY

REC'D 15 APR 2005

WIPO

PCT

## PCT

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

### WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/EP2004/013342

International filing date (day/month/year)  
24.11.2004

Priority date (day/month/year)  
24.11.2004

International Patent Classification (IPC) or both national classification and IPC  
H04L29/06

Applicant  
MATSUSHITA ELECTRIC INDUSTRIAL CO. LTD

**1. This opinion contains indications relating to the following items:**

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

**3. For further details, see notes to Form PCT/ISA/220.**

Name and mailing address of the ISA:



European Patent Office - P.B. 5818 Patentlaan 2  
NL-2280 HV Rijswijk - Pays Bas  
Tel. +31 70 340 - 2040 Tx: 31 651 epo nl  
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Telephone No. +31 70 340-2324



**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/EP2004/013342

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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material:  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing:  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/EP2004/013342

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	1-20
	No: Claims	
Inventive step (IS)	Yes: Claims	1-20
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-20
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

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**Box No. VII Certain defects in the international application**

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The following defects in the form or contents of the international application have been noted:

**see separate sheet**

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**Box No. VIII Certain observations on the international application**

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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

**Re Item V.**

Reference is made to the following document:

D1 : J. REY, D. LEON, A. MIYAZAKI, V. VARSA, R. HAKENBERG: "RTP Retransmission Payload Format" IETF INTERNET DRAFT DRAFT-IETF-AVT-RTP-RETRANSMISSION-09.TXT, August 2003, pages 1-26, XP002279287 IETF

**1 INDEPENDENT CLAIM 14:**

The subject matter of claim 14 which has the broadest scope, appears to satisfy the criteria of novelty, inventive step and industrial applicability, as defined for the purposes of the international preliminary examination in Article 33(1) to (4).

(I) Claim 14 relate to a method for providing feedback for data packets of a streaming session between a client and a streaming server, using the RTP and RTCP protocols. Such a method is known from prior art document D1, which represents the closest prior art for the subject matter of claim 14.

(ii) The main difference between the subject-matter of claim 14 and document D1, is that in order to enable an optimum number of retransmissions while providing a minimum required level of reporting redundancy, the maximum number of retransmissions providable within session constraints is compared with the minimum number of retransmissions enabled by the client and a decision is taken whether to add a number of different types of supplementary report blocks to the RTCP feedback.

(iii) The features described in point (ii) solve the objective technical **problem** of how to fully use the existing resources available for retransmissions in a streaming communication, while fulfilling the transmission quality requirements.

(iv) No prior art document suggests or hints at this objective problem, nor at the **solution**, which solution implies introducing additional report blocks in the feedback if it is possible to preserve a minimum reporting redundancy.

- 2 Independent claims 1, 16, 18 and 20 relate to a method and corresponding client, computer readable medium and system covering essentially the same subject-matter as claim 1, providing though additional implementation details and as such also meet the requirements of the PCT with respect to novelty and inventive step.
- 3 Claims 2-13, 15, 17 and 19 are dependent on claims 1, 14, 16 and respectively 18 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

**Re Item VII.**

The two-part form, Rule 6.3 (b) PCT, is not used in the independent claims with a pre-characterising part that correctly reflects the closest prior art (D1).

**Re Item VIII.**

- 1 Although claims 1 and 14 have been drafted as separate independent claims, all the method steps of claim 14 are already defined in method claim 1; therefore claim 1 is actually a dependent claim(Rule 6.4 (a)).  
The aforementioned claims therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.  
Claim 1 should have been drafted as a claim explicitly depending on claim 14 (Guidelines 5.16).
- 2 Claim 16 does not meet the clarity requirements of Article 6 PCT, because the word "in" used to define the relationship between "**a client**" and "**a mobile communication system**", renders claim 16 unclear regarding whether the protection sought is limited to the subunit ("**a client**") or whether the unit as a whole ("**a mobile communication system**") is to be protected (Guidelines 5.32).

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/EP2004/013342

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/013342

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04L29/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, COMPENDEX

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>J. REY, D. LEON, A. MIYAZAKI, V. VARSA, R. HAKENBERG: "RTP Retransmission Payload Format"</p> <p>IETF INTERNET DRAFT</p> <p>DRAFT-IETF-AVT-RTP-RETRANSMISSION-09.TXT,</p> <p>'Online! August 2003 (2003-08), pages 1-26, XP002279287</p> <p>IETF</p> <p>Retrieved from the Internet:</p> <p>URL: <a href="http://www.ietf.org/internet-drafts/draft-ietf-avt-rtp-retransmission-10.txt">http://www.ietf.org/internet-drafts/draft-ietf-avt-rtp-retransmission-10.txt</a></p> <p>'retrieved on 2004-05-07!</p> <p>cited in the application</p> <p>* Abstract *</p> <p>paragraphs '0001! - '0004!, '0006!, '0008!, '0010!</p> <p style="text-align: center;">-----</p> <p style="text-align: center;">-/-</p>	1-20

☒ Further documents are listed in the continuation of box C.

☐ Patent family members are listed in annex.

### \* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the International filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the International filing date but later than the priority date claimed

"T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the International search

7 April 2005

Date of mailing of the International search report

19/04/2005

Name and mailing address of the ISA

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# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2004/013342

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>KOICHI YANO, MATTHEW PODOLSKY, STEVEN MCCANNE: "RTP Profile for RTCP-based Retransmission Request for Unicast session"</p> <p>IETF INTERNET DRAFT, 14 July 2000 (2000-07-14), pages 1-10, XP002322902 the whole document</p> <p>-----</p>	1-20